

Tsuguo HONGO*: Notes on Japanese larger fungi (20)**

本郷次雄*: 日本産きのこ類の研究 (20)**

In the present paper five new species and one new variety of Agaricales are described and illustrated. Among these, *Cortinarius claricolor* var. *tenuipes* was already recorded as *Cortinarius turmalis* and also *Heimiella japonica* as *Boletellus retisporus*, both by the present writer. All collections cited are preserved in his herbarium. Ridgway colors (Color Standards and Color Nomenclature, Washington, D.C., 1912) are indicated in quotation marks, e.g., "ochraceous-orange".

129) *Amanita sphaerobulbosa* Hongo sp. nov. (Fig. 1-1~4)

Pileo 3-7 cm vel ultra lato, e hemisphaerico convexo, deinde applanato, sicco, albo, dein leviter subrubescens, verrucis albis, pyramidalibus, acutis, 1-2 mm altis, secedentibus ornato, astriato, margine primum velo albo, floccoso appendiculata; carne alba, subtenui, sapore miti, odore obsoleto; lamellis liberis, sed striis in stipitem decurrentibus, albis, ventricosis, ± 7 mm latis, acie albo-pruinosa; stipite 8-14 cm longo; 6-8 mm crasso, sursum leviter attenuato, basi sphaero-bulboso (1.8-2.8 cm), floccoso-vel fibrilloso-squamuloso, albo, dein leviter brunnescente vel subrubescens, solido; annulo supero, albo, membranaceo, striato, subtus floccoso, persistente; sporis in cumulo albis, sub microscopio hyalinis, globosis vel subglobosis, laevis, amyloideis, 7-8.5 μ diam. vel 7-9.5 \times 6.5-8.5 μ ; basidiis tetrasporis, 44-55 \times 12-13 μ ; elementis cheilocystidioideis aciei 28-53 \times 12-16 μ , clavatis, sphaeropedunculatis vel irregularibus, hyalinis, tenui-tunicatis.

Hab. On the ground in forest of *Fagus crenata*, at about 850 m elevation, Mt. Watamuki, Shiga-pref., Sept. 17, 1967 (no. 3504-type): in forest of *Fagus crenata*, Mt. Ôtaki, Kagawa-pref., Oct. 4, 1964 (no. 3882, coll. H. Toshima).

Distr. Endemic (Shiga, Kagawa).

In beech forests, in autumn. Easily distinguished in abruptly swollen spherical bulb at the base of stem, from all other white members of the

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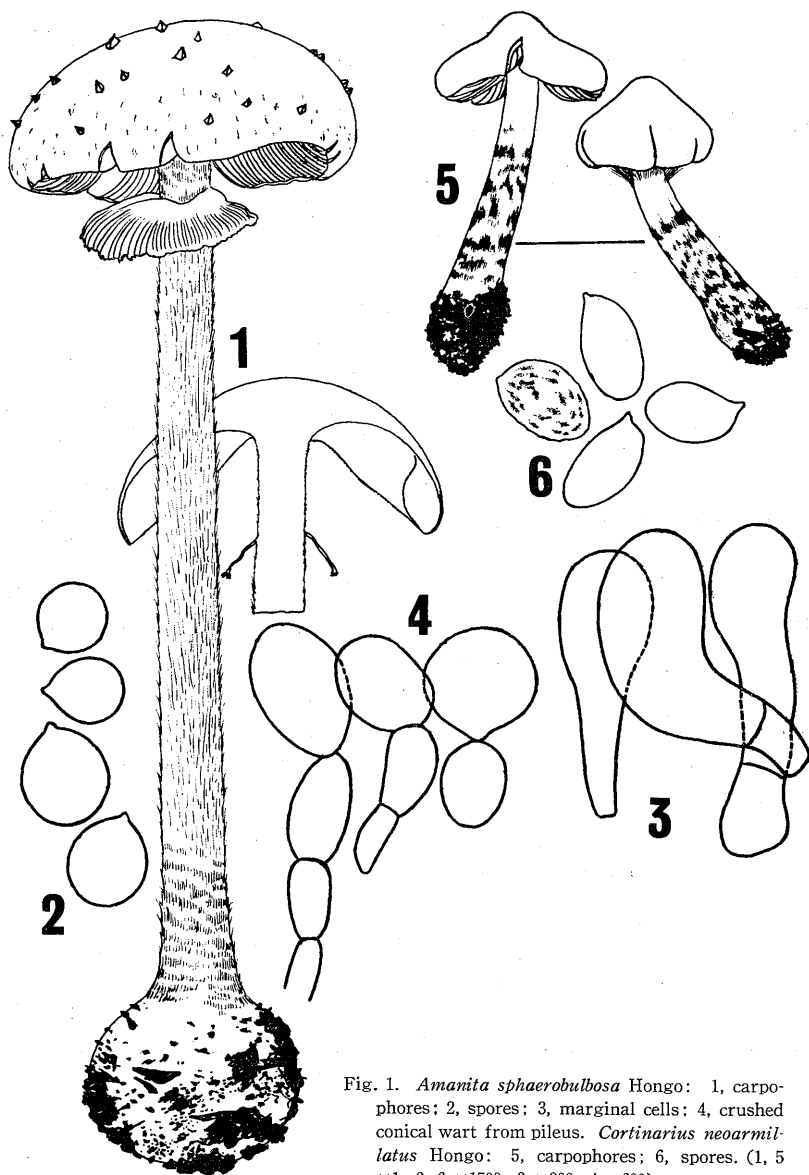


Fig. 1. *Amanita sphaerobulbosa* Hongo: 1, carpophores; 2, spores; 3, marginal cells; 4, crushed conical wart from pileus. *Cortinarius neoarmillatus* Hongo: 5, carpophores; 6, spores. (1, 5 $\times 1$; 2, 6 $\times 1500$; 3 $\times 900$; 4 $\times 600$)

section Lepidella. The remnants of volva (warts) on cap consist of short chains of globose, elliptical, clavate ($17-27\mu$ in diam. or $25-40 \times 15-25\mu$) or rarely elongate cells mixed with few $\pm 5\mu$ wide hyphae.

130) **Cortinarius claricolor** (Fr.) Fr. var. **tenuipes** Hongo var. nov.—*Cortinarius turmalis* Fr. sensu Hongo in Mem. Shiga Univ. (Kenkyû-Ronshû) 2: 50, 1953 (non Fr., Moser). (Fig. 3-1)

Differt a typo in stipite tenuiore. Pileo 4-8(10) cm lato, ochraceo-aurantio vel ochraceo; lamellis stipatis, angustis; stipite 5.5-10 cm longo, 7-11 mm crasso, aequali vel deorsum attenuato; sporis elliptico-subfusoides, fere laevibus, $7.5-9.5 \times 3.5-5\mu$.

Pileus 4-8(10) cm broad, convex, then plane, very obtuse, surface viscid when wet, at first furnished, especially round the margin, with inconspicuous patches of white silky fibrils from the universal veil, color "ochraceous-orange" to "ochraceous-buff", or near "antimony yellow"; margin incurved when young. Flesh moderately thick at the disc, white, compact when young, taste and odor mild. Lamellae adnate, then emarginate, crowded ($L=72-90$; $l=3-7$), narrow (3-4 mm), more or less eroded, whitish, then clay color (somewhat brighter than "ochraceous-tawny" in dried specimens). Stipe 5.5-10 cm long, 7-11 mm thick, equal or attenuated downward, white, then argillaceous, when young sheathed up to the cortina with a white wooly universal veil, solid. Cortina white, copious, persistent in the form of a ring, at length ferruginous with the spores. Spores brownish fulvous under the microscope, elliptic-subfusoid, nearly smooth, $7.5-9.5 \times 3.5-5\mu$; basidia four-spored, $23-26 \times 6-7\mu$; cheilo- and pleurocystidia none.

Hab. Gregarious, on the ground in *Pinus densiflora*-*Quercus serrata* forests, Seta-Minamiokaya, Ôtsu-city, Oct. 22, 1950 (no. 123); Oct. 4, 1952 (no. 507); Oct. 24, 1954 (no. 1081-type): Ishiyama-Sotohata, Ôtsu-city, Nov. 14, 1961 (no. 2426): Imodani, Ishiyama-Nangô, Ôtsu-city, Sept. 21, 1968 (no. 3745).

Distr. Endemic (Honshû).

Ill. Hongo, Mem. Shiga Univ. 2: 48, fig. 6 (spores, sub nom. *Cortinarius turmalis*); Imaz. & Hongo, Col. Ill. F. Jap. 1: pl. 31, fig. 178 (sub nom. *Cortinarius turmalis*).

This fungus was recorded for Japan by the present writer (l.c.) as *Cortinarius turmalis* Fr., but on account of its slender stem, he now prefers to describe it as a new variety of *C. claricolor* (Fr.) Fr. Around *C. claricolor*

there are grouped several species or varieties which are usually distinguished by yellow to brown caps, well-developed white universal veil which covers both cap margin and stem, and narrowly fusoid, almost smooth spores, less than $11\ \mu$ long. M. Moser (Phlegmacium 80-81: 148-153. 1960 & in Gams, Kleine Kryptogamenflora IIB/2: 287-289. 1967) classifies *C. turmalis* as a variety of *C. clavicolor*. The writer has collected true *C. turmalis* only once in mixed forest of *Betula*, *Larix*, *Abies*, etc. in Nagano-pref., while S. Kawamura (Ic. Jap. Fung. 5: 516. 1954) mentions that it is abundant in *Tsuga* forests in Mt. Fuji.

131) **Cortinarius neoarmillatus** Hongo sp. nov. (Fig. 1-5~6)

Pileo 1.5-2.5 cm vel ultra lato, convexo vel applanato, obtuse mammoso, glabro, nonviscido, centro umbrino-castaneo ("chestnut-brown" vel "carob brown"), margine pallidiore ("Sayal brown"); carne tenui, brunneola, in stipite pallidiore, odore saporeque nullo; lamellis emarginato-adnatis, latis (3-4 mm); distantibus, pallidis, deinde cinnamomeo-brunneis, acie leviter serrulata; stipite 4-5 cm longo, apice 4-5 mm, basi 7-10 mm crasso, clavato-subbulboso, pallide brunneo, ad apicem albido sericeoque, deorsum squamis adpressis, fibrillosis, castaneis ("auburn") obducto, solido; cortina alba, fibrillosa, supra, fugaci; sporis sub microscopio ferrugineo-brunneis, e ellipsoideis subamygdaliformibus, subtilissime punctatis vel sublaevibus, $9-12 \times 5.5-6.5\ \mu$; basidiis bi- vel tetrasporis, $26-31 \times 6.5-10\ \mu$; pleurocystidiis cheilocystidiisque nullis; fibulis praesentibus.

Hab. On the ground in forest of *Pinus densiflora* (mixed with *Quercus*, etc.), Anji, Yasutomi-chô, Hyogo-pref., Oct. 6, 1966 (no. 3357, coll. M. Hatanaka-type).

Distr. Endemic (Hyogo, Nara).

Probably not uncommon in mixed pine and oak forests. The present species is well characterized by the reddish universal veil and the very slightly punctate or almost smooth spores. Its veil remnants are left in form of the incomplete band-like zones of fibrils distributed over the lower two thirds of the stem, as in the case of *C. spilomeus* (Fr.) Fr. However, it is clearly separated from the latter in the absence of reddish squamules over the cap, the lack of lilac tints on both the gills and stem, and in the shape of spores. It is very close to *C. paraguadis* Fr. but differs in the narrower spores and the absence of cheilocystidia. *C. veregregius* R. Hry.

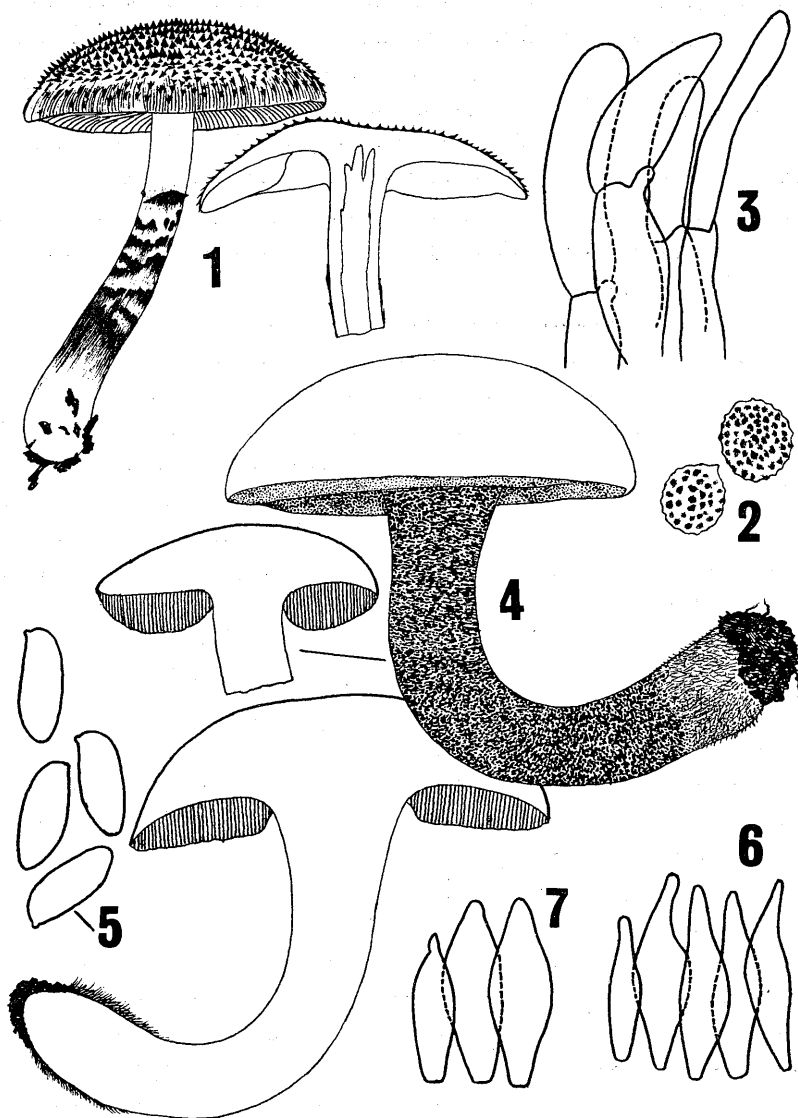


Fig. 2. *Cortinarius nigrosquamosus* Hongo: 1, carpophores; 2, spores; 3, hyphae from scale on pileus. *Boletus umbriniporus* Hongo: 4, carpophores; 5, spores; 6, cheilocystidia. 7, caulocystidia. (1, 4 $\times 1$; 2, 5 $\times 1500$; 3, 6, 7 $\times 900$)

differs in having shorter spores and cheilocystidia of various forms. *C. subtestaceus* Sm. also appears to be quite similar but its color of the universal veil is described as "army-brown" to "fawn-color".

132) **Cortinarius nigrosquamosus** Hongo sp. nov. (Fig. 2-1~3)

Pileo 4-6 cm lato, convexo dein expanso, sicco, pallide flavido (e "cream buff" "chamois"), squamis nigris piloso-fasciculatis erectis obtecto; carne subfragili, albida, in stipite mellea vel isabellina, sapore odoreque nullo; lamellis adnato-subdecurrentibus, secedentibus, subdistantibus, e pallidis argillaceo-fulvis, 4-6 mm latis, acie leviter erosis; stipite 4-7 cm longo, 6-10 mm crasso, clavato (basi 9-16 mm), pileo concolore, infra cortinam nigro-squamis (squamis erectis adpressis), apice nudo, cavo; sporis sub microscopio ferrugineo-fulvis, subglobosis vel late ovoideis, punctatis, $6-7.5 \times 5-6 \mu$; basidiis tetrasporis, $25-31 \times 6-8 \mu$; tramate hymenophorali regulari, ex hyphis 7-30 μ latis, parallelis consistente; squamis pilei ex hyphis 5.5-18 μ latis, septatis, cum fibulis, pigmento intracellulari olivaceo-fusco praeditis, constante, membris terminalibus attenuatis ad apicem vel subcylindraceutis.

Hab. In *Pinus-Quercus* forest, Shôrakuji, Kôra-chô, Shiga-pref., Oct. 18, 1951 (no. 241): in oak forest (*Quercus acutissima*), Naka, Yamazaki-chô, Hyogo-pref., Oct. 11, 1968 (no. 3780-type).

Distr. Endemic (Shiga, Hyogo).

A rare autumn species, recognizable by the black, shaggy, protruding scales. It appears to be quite close to *C. pholideus* (Fr.) Fr., but differs in the deep-black instead of dark brown scales, in the lack of violaceous tints at the top of the stem and in the subglobose spores.

133) **Boletus umbriniporus** Hongo sp. nov. (Fig. 2-4~7)

Pileo 4-9 cm lato, semigloboso, dein convexo, sicco, minute tomentoso, umbrino ("Brussels brown", "raw umber" vel "Dresden brown"); carne pallide lutea, in stipitis basi rubella, fracta cyanescenti, crassa, odore saporeque nullo; tubulis liberis, 5-8 mm longis, luteis, fractis cyanescentibus; poris parvis, 2-3 in uno mm, roundis, obscure umbrinis ("bister"); stipite 5-8 cm longo, 7-12 mm crasso, subaequali vel basi subradicato, firmo, solido, e flavido umbrino, haud reticulato, dense fusco-squamuloso-punctato, basi tomentoso; sporis sub microscopio melleis, $9.5-12 \times 4-5.5 \mu$, subcylindricis vel subfusiformibus, laevibus; basidiis tetrasporis; cystidiis pororum numerosis, $25-34 \times 6.5-10 \mu$, fusioideo-ventricosis, tenui-tunicatis, obscure flavido-brunneis; tramata

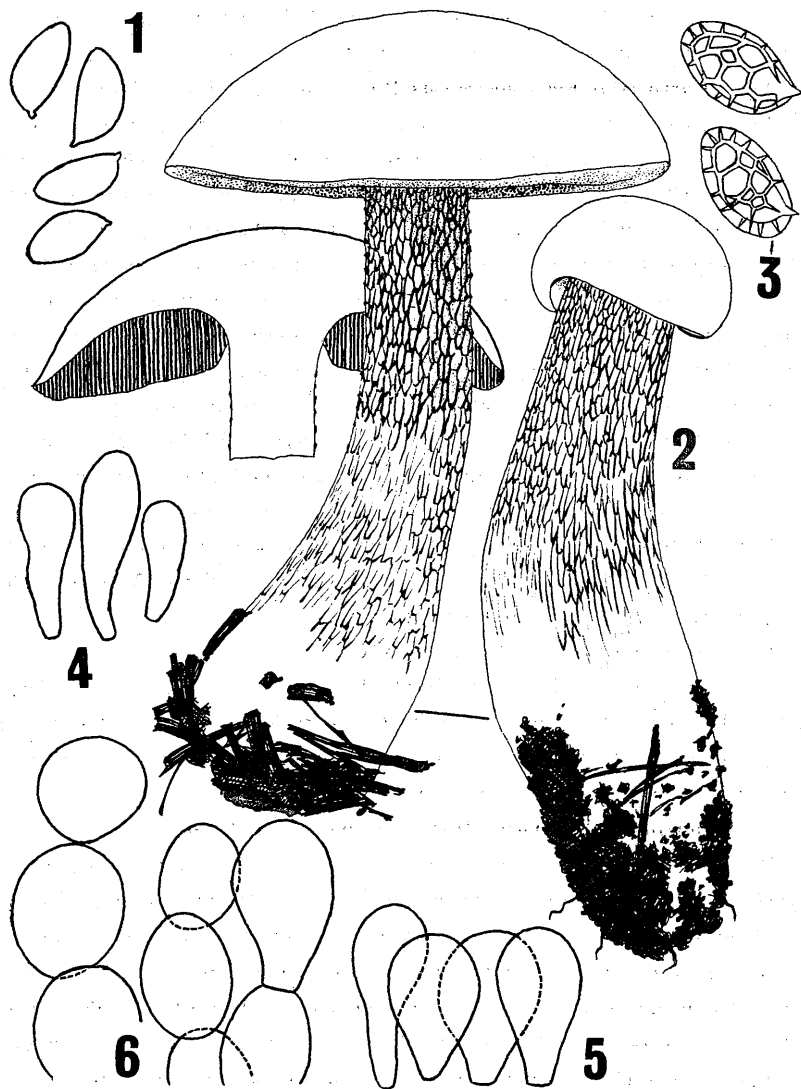


Fig. 3. *Cortinarius claricolor* (Fr.) Fr. var. *tenuipes* Hongo: 1, spores. *Heimiella japonica* Hongo: 2, carpophores; 3, spores; 4, cheilocystidia; 5, caulocystidia; 6, cuticular cells. (2 \times 1; 1, 3 \times 1500; 4-6 \times 900)

typi *Boletorum*; caulocystidiis fusoideo-ventricosis, $22-45 \times 8-10.5 \mu$.

Hab. On the ground in evergreen broad-leaved forest, especially under *Castanopsis cuspidata*, Arato-jinja, Kamidanakami, Ôtsu-city, Sept. 2, 1967 (no. 3464-type): in deciduous forest (*Quercus serrata* and *Q. acutissima*), Imodani, Ishiyama-Nangô, Ôtsu-city, Sept. 8, 1967 (no. 3482).

Not uncommon, from summer to autumn. This species is closely related to *B. erythropus* (Fr.) Pers., but is clearly distinct from the latter in the dark brown instead of red pores and punctations. *B. nigro-violaceus* Heim, a New Guinean species, is somewhat similar in appearance, and also found in broad-leaved woods (*Quercus* and *Castanopsis*), but differs in the blackish violet cap and longer spores ($10-18 \times 4.5 \mu$).

134) **Heimiella japonica** Hongo sp. nov.—*Boletellus retisporus* (Pat. et Baker) Gilb. sensu Hongo in Acta Phytotax. Geobot. 18: 112, 1960 (non Pat. et Baker). (Fig. 3-2~6)

Pileo 5-8 cm vel ultra lato, hemisphaerico vel convexo, dein explanato, siccò, sub lente \pm furfuraceo, e vinaceo-rubro subtestaceo ("Corinthian red", "Etruscan red", "orange-vinaceous", "Congo pink", etc.); carne crassa, compacta, pilei pallide lutea, stipiti rubella, immutabili (vel leviter caerulelescente), odore saporeque miti; tubulis depressis vel subliberis, 8-13 mm longis, pallide citrinis ("picric yellow"), deinde luteo-olivaceis ("Mignonette green"); poris concoloribus, 0.3-0.6 mm latis, rotundatis vel subangulatis; stipite 6-13 cm longo, 7-12 mm crasso, aequali vel leviter sursum attenuato, basi subbulboso (2.5 cm), ad apicem flavido, ceterum pileo subconcolore ("dark vinaceous"), dense minute furfuraceo-punctato et reticulato, solido, basi albo-tomentoso; sporis sub microscopio melleo-brunneis, $9.5-15 \times 7-8 \mu$, ellipsoideis, reticulatis; basidiis tetrasporis, $31-35 \times 9.5-10 \mu$; cellulis marginalibus $25-38 \times 7-11 \mu$, pallide flavidis, clavatis; tramate hymenophorali bilateralibus, ex hyphis 4-14 μ latis constante; caulocystidiis $21-38 \times 10-15 \mu$, sphaeropedunculatis vel clavatis; cute pilei e cellulis globosis, ellipticis vel piriformibus, 10-20 μ latis constante; hyphis omnibus haud fibuligeris.

Hab. In *Pinus densiflora*-*Quercus serrata* forests, Tanakami-Kurozu, Ôtsu-city, July 16, 1958 (no. 1820, coll. A. Okada); Ishiyama-Terabe, Ôtsu-city, Sept. 10, 1958 (no. 1858); Sept. 14, 1962 (no. 2546); Sept. 22, 1965 (no. 3142); Sept. 27, 1965 (no. 3147); Ishiyama-Senjô, Ôtsu-city, Aug. 31, 1966 (no. 3294-type); Aug. 31, 1967 (no. 3460).

Distr. Endemic (Shiga).

Ill. Hongo, Acta Phytotax. Geobot. 18: 111, fig. 4, E (spores, sub nom. *Boletellus retisporus*); Imaz. & Hongo, Col. Ill. F. Jap. 2: pl. 31, fig. 192 (sub nom. *Boletellus retisporus*).

Not uncommon, from summer to autumn. This fungus was formerly referred by the present writer (l.c.) to *Boletellus retisporus* (Pat. et Baker) Gilb., but on account of the differences of the cap cuticle characters he now prefers to describe it as a new species. *Heimiella anguiformis* Heim also has cuticle which is composed of sphaerocysts, but it differs chiefly in colors.

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この報文には日本産のハラタケ目にぞくするきのこ類 5 新種, 1 新変種を記載した。

129) **タマシロオニタケ** (豊島弘氏新称, 新種)。全体白色の種類で、ジロオニタケ *A. virgineoides* Bas (ad inter.) に似るが、茎の下端が急に膨大し球根状をなす点で簡単に区別できる。滋賀県綿向山 (鈴鹿山脈) および香川県大滝山 (讃岐山脈, 豊島氏) のブナを主とする落葉樹林で採集。

130) **ニセアブラシメジ** (新変種)。筆者は以前にオオツガタケ *C. turmalis* Fr. と同定していたが、茎が細長な点で別物とするのが妥当と考え、さらにかさの色、外被膜の性質、胞子の形態等をも考慮に入れて、*C. claricolor* (Fr.) Fr. の新変種として記載することにした。本州に広く分布するようである。

131) **コツバフウセンタケ** (新種)。小形、褐色の種類で、茎には赤褐色の圧着鱗片 (外被膜) がやや帯状にならぶ。胞子はほとんど平滑。兵庫県宍粟 (しろう) 郡安富町安志のアカマツ林で、兵庫県林業試験場技師畑中政雄氏採集、奈良県吉野郡にも産する。

132) **オニフウセンタケ** (新種)。帯黄色の地に黒色の、先のとがった突起 (鱗片) を多数付着している。胞子は類球形。ササクレフウセンタケ *C. pholideus* (Fr.) Fr. に近い種類と考えられる。滋賀県犬上郡甲良町正楽寺のアカマツ-コナラ林、および兵庫県宍粟郡山崎町中のクスギ林で採った。

133) **コゲチャイロガワリ** (新種)。全体がこげ茶色のイグチ類で、茎には細鱗片または細点を密布し、管孔は黄色であるが空気につれると強く青変、孔口はこげ茶色である。オオウラベニイロガワリ *B. erythropus* (Fr.) Pers. に近い種類であるが、後者では茎と孔口がともに赤色である点で容易に区別される。大津市上田上、荒戸神社境内のシイ林、および同市石山南郷町芋谷のコナラ、クスギ林で採集。

134) **ベニイグチ** (新種)。筆者が以前に *Boletellus retisporus* (Pat. et Baker) Gilb. という名を当てた種類であるが、本種の表皮は主として球形細胞 (sphaerocysts) よりなり、*Boletellus retisporus* (= *Heimiella retispora*) とは明らかに区別されるので、新種として記載することにした。大津市内各所で採集。